REMARKS

35 USC § 112 Claim Rejections

Claims 6 and 7 have been amended to recite the phrase "how long since each particular wireless station was last allocated" which is a sufficiently clear phrasing. Claim 15 has been amended to correct the formula such that the second occurrence of the ">" now reads "<". Please note that the same change has been made in the Summary of the Invention section and in the description on page 12. This amendment is consistent with the description surrounding that equation. The Examiner's attention to detail in identifying this error is appreciated.

Claims 20 to 23 have been amended to refer to "means for implementing the method of claim 1". This should be sufficiently precise to define the function of the means.

35 USC § 102 & 35 USC § 103 Claim Rejection

The Examiner has relied upon U.S. Patent No. 5,914,950 Tiedemann in all of the 35 USC § 102 and 35 USC § 103 claim rejections. The '950 patent discloses a reverse link scheduling methodology for a CDMA wireless network that is directed toward minimizing transmission delays of data. The sections identified by the Examiner clearly direct the focus on data transmission, but from a data (packet) perspective, as opposed to a BTS (wireless station) utilization perspective. It is in this regard that the '950 patent and pending claims differ, notwithstanding the fact that both use "delay" as a monitored metric.

In the '950 patent, "delay" is in the context of quantity of data to be transmitted in conjunction with reverse link capacity (see e.g., col. 4, lines 60-66). Responsive to such transmission rate from a channel scheduler (12), the data is partitioned into frames for transmission by a given BTS at or below an established maximum transmission rate.

The term delay is used in Tiedemann in col. 5, line 24 in the context of "the amount of delay already experienced by the user". Then, later in the description, the scheduling

delay which is the parameter used in computing the priority is defined as the delay which exists from the time data is made available to the remote station to the time of data transmission at the high speed transmission rate. See for example col. 13, line 44, col. 22, line 9. Thus it is clear that in the '950 patent, the delay which is considered important is that which occurs between a packet arriving for transmission, and the actual transmission of the packet.

In contrast, in the subject application the "delay parameter is maintained which is "indicative of how long since the wireless station was last allocated a transmit opportunity". It is an important distinction that this delay parameter in fact has nothing to do with whatsoever with how long the current transaction has been waiting. Thus claim 1 and all claims depending therefrom are directed toward network management from the standpoint of "last BTS usage" as opposed to the '950 patent disclosure of "which BTS has capacity at a given point in time" and how long a particular transmit packet has been waiting to be transmitted.

Seeing as though all of the claims of the subject application include this important difference over Tiedemann, applicant respectfully submits that the 35 USC 102 and 103 rejections should all be withdrawn, and respectfully request that the Examiner allow the claims.

In view of the above discussion which is applicable to all of the independent claims, applicant at this time is not discussing the details of the Examiner's submissions regarding the remaining claims but is not at this time conceding that the Examiner's conclusion regarding the incremental subject matter of those claims is correct.

Favourable consideration and allowance is requested.

However, if any objections remain, the Examiner is respectfully requested to telephone the undersigned with a view to resolving such objections as expeditiously as possible.

Respectfully submitted,

GHASSAN NAIM, ET AL

By _____

Allan Brett
Registration No. 40,476
Smart & Biggar

Dated: October 3, 2002
RAB:rld
Ottawa, Ontario, Canada
Tel: (613) 232 2486 ext. 323

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE DESCRIPTION

Please amend page 4, line 15 to line 19 as follows:

--Preferably, the transmit priority is calculated according to:

$$P_{transmit} = \begin{cases} -1 & dFr > a \\ Highest & dFr = a \\ \left(\frac{dFr}{trSize}\right)\left(1+\left[\frac{1}{a-dFr}-\frac{1}{a}\right]\alpha\right)+MS\,Priority & [dFr > a]\underline{dFr < a} \end{cases}$$

where:

trSize is the transaction size;--

Please amend page 12, line 8 to line 13 as follows:

--In the preferred embodiment, the priority P_{slot} for each of the selected mobile stations to be allocated an available downlink slot is calculated as follows:

$$P_{slot} = \begin{cases} -1 & dFr > a \\ Highest & dFr = a \\ \left(\frac{dFr}{trSize}\right)\left(1+\left[\frac{1}{a-dFr}-\frac{1}{a}\right]\alpha\right)+MS\,Priority & [dFr > a]\underline{dFr < a} \end{cases}$$

where:

trSize is the above referenced original transaction size in units of MAC frames;--

IN THE CLAIMS

Please amend claims 6, 7, 15, 21, 22 and 23 as follows:

6. (Amended) A method according to claim 1 further comprising:

maintaining a respective measure of how long since [until] each particular wireless station was last allocated a transmit opportunity;

wherein said transmit priority is also a function of how long until a timeout will occur for the respective wireless station.

7. (Amended) A method according to claim 5 further comprising:

maintaining a respective measure of how long since [until] each particular wireless station was last allocated a transmit opportunity;

wherein said transmit priority is also a function of how long until a timeout will occur for the respective wireless station.

15. (Amended) A method according to claim 1 wherein the transmit priority is calculated according to:

$$P_{transmit} = \begin{cases} -1 & dFr > a \\ Highest & dFr = a \\ \left(\frac{dFr}{trSize}\right)\left(1+\left[\frac{1}{a-dFr}-\frac{1}{a}\right]\alpha\right)+MS\,\mathrm{Priority} & [dFr > a]\,dFr \le a \end{cases}$$

where:

trSize is said transaction length [size];

dFr is said delay parameter;

"a" is a timeout value for a given wireless station which indicates a maximum allowable time which can elapse before the allocation of a transmit opportunity for the wireless station;

MSPriority is any suitable definition of wireless station priority;

α is an accelerator factor towards a higher priority for a given wireless station that has not been selected for a while.

21. (Amended) A base station comprising means for [operable to] implementing the method of claim 1.

22.(Amended) A base station controller comprising means for [operable to] implementing the method of claim 1.

23. (Amended) A MAC layer device comprising means for [operable to] implementing the method of claim 1.